

Serial No. 09/928,585 - Rojas et al.

REMARKS

Claims 1-5, 9-15, and 18, 19, 21-27, and 29-37 are of record in this application. Claims 12, 21, 22, 25, and 29 have been amended, claims 20 and 28 have been canceled, and new claims 30-37 have been added.

Applicants kindly thank the Examiner for indicating that claims 1-5, 9-11, 26, and 27 are allowable, and that claims 13-15 and 19-23 would be allowable if rewritten in independent form. Applicants have presented this amendment in an effort to incorporate those limitations indicated being allowable into the independent claims. Accordingly, claim 12 has been amended to incorporate the limitations of claim 20 therein. Although claims 25 and 29 have been rejected, these claims have been further limited to a bait containing between about 50 to 90% water content. Applicants believe that because claims 25 and 29 are now limited to baits containing both an insecticidal agent and water (the claims already recited the insecticidal agent in their previously presented form), the baits incorporate all of the limitations which were present in the above-mentioned previously presented claims 12 plus 20, and should therefore also be

Serial No. 09/928,585 - Rojas et al.

patentable. New claims 30-37 are merely dependent claims further limiting the bait or insecticidal agent of allowed claim 26.

Claims 30-37 correspond to claims 13-17 and 21-23, respectively.

Applicants reserve the right to file one or more Divisional and/or Continuation applications drawn to the canceled subject matter.

Support for the amendments to the claims is inherent in the originally filed disclosure. Specifically, claim 12 has been limited to incorporate the limitations of original claim 20 therein. The recitation in claims 25 and 29 that the bait includes between about 50 to 90% water is supported by the disclosure in original claims 16 and 17 and paragraph 0052 on page 24 of the specification. New claims 30-37 correspond to and are supported by original claims 13-17 and 21-23, respectively.

Objection to the Claims

Claim 24 has been objected to under 37 CFR 1.75(c) as failing to limit a previous claim. The Examiner has noted that independent claim 24 is limited to a composition of at least 50% water, while claim 24 is limited to a solid. In reply, the specification discloses at paragraph 0061 on page 28, that the

Serial No. 09/928,585 - Rojas et al.

bait may be a liquid, gel, or solid. Although the composition of claim 12 is limited 50% or more water, the phase of the composition is not specified in this claim (the claim encompasses solids or liquids). Thus claim 24 is believed to properly further limit claim 12. If the Examiner is concerned if compositions with such a high water content can be a solid, applicants submit that they can. For instance, the low fat food spread composition of the Miller patent relied upon by the Examiner is described as a solid (page 2, lines 24-26 and page 3, lines 19-23) even while containing 68% water (Table 4 on page 12). Even the human body contains over 90% water, and many commercially available absorbents such as those used in diapers, are capable of absorbing many times their weight in water while maintaining their solid phase.

Rejection under 35 U.S.C. 102/103

Claims 12, 18, and 28 have been rejected under 35 U.S.C. 102(b) as being anticipated by, or under 35 U.S.C. 103, as obvious over Miller et al. (EP 49705). In summary, the Examiner has taken the position that although the presence of gossypol or

Serial No. 09/928,585 - Rojas et al.

other cotton phyllophage toxin is not disclosed, they would be inherently present. Applicants respectfully disagree.

Miller describes a low fat food spread, similar to margarine, which comprises an emulsion of hydrogenated oil, non-hydrogenated oil, a thickener, and water. Miller discloses that a variety of edible oils, including soybean oil and blends thereof, may be used (pages 5 and 6). Thickening agents which may be used include cellulose derivatives (page 9, lines 27-35). The disclosure is silent with respect to the presence or absence of gossypol or other cotton phyllophage toxins.

The instant application is drawn to compositions and their use which include gossypol and/or other phyllophage toxins from glanded cotton in low concentrations which, in the absence of other insecticidal agents, are not biocidal to the target insects. Applicants have unexpectedly discovered that at these low levels, gossypol and other cotton phyllophage toxins slowly weaken the target insects when ingested, thereby rendering them susceptible to a variety of other insecticidal agents at significantly lower levels than normally required for toxicity, and may even render the target insects susceptible to

Serial No. 09/928,585 - Rojas et al.

insecticidal agents which are normally ineffective. Moreover, at these low levels, the gossypol and other cotton phyllophage toxins may synergistically enhance the insecticidal efficacy of these other insecticidal agents. This is not disclosed or suggested.

Although Miller discloses that cottonseed oil may be included, the patent is silent as to the type of cottonseed oil (*i.e.*, crude or refined) or the presence of gossypol or other cotton phyllophage toxins. There is no disclosure that these compounds are present, much less in the claimed concentration which is not biocidal to termites in the absence of an additional insecticidal agent, but which is sufficient to significantly increase the insecticidal efficacy of the additional insecticidal agent when termites are exposed thereto. Applicants respectfully submit that the actual concentration of gossypol in the oil or spread of Miller is a matter of conjecture. However, in an effort to expedite prosecution, claim 12 has been amended to incorporate the insecticidal agent of dependent claim 20 which has been identified as allowable if rewritten in independent form.

Serial No. 09/928,585 - Rojas et al.

The food spread of Miller does not contain an insecticide, nor would a practitioner of ordinary skill in the art have any motivation to add an insecticide to a food.

Rejection under 35 U.S.C. 102/103

Claims 12, 18, and 28 have been rejected under 35 U.S.C. 102(b) as being anticipated by, or under 35 U.S.C. 103, as obvious over McKibben (US 3,954,968). As in the first rejection, the Examiner has taken the position that while the presence of gossypol or other cotton phyllophage toxin is not disclosed, they would be inherently present.

McKibben ('968) discloses an attractant for the boll weevil which comprises a mixture of a synthetic pheromone, crude cottonseed oil, an organic filler such as modified cellulose, and water. The amount of crude cottonseed oil may vary between 5 and 20% (claim 1), while example 1 discloses a formulation having 5% crude cottonseed oil. The reference does not disclose the presence of gossypol or other cotton phyllophage toxins.

The instant application was described *supra*.

Although McKibben '968 does not disclose the presence of gossypol in either the crude cottonseed oil or the final

Serial No. 09/928,585 - Rojas et al.

attractant, the claims have been amended nonetheless in an effort to remove any question that they might encompass the attractant of the patent. Again, claim 12 has been further limited to the presence of the insecticidal agent of claim 20. This is not disclosed or suggested by McKibben '968. Indeed, if anything, the disclosure of the patent would teach away from the inclusion of an insecticide. McKibben '968 discloses at col. 1, lines 11-13, that the "main object of this invention is to provide a species-specific control method which will not affect non-target insect species". A practitioner of ordinary skill in the art could not reasonably predict that the bait would not affect non-target insects if an insecticidal agent were added.

Moreover, Applicants have unexpectedly discovered that when used at the low levels recited in the claims, gossypol and other cotton phyllophage toxins slowly weaken the target insects when ingested, thereby rendering them susceptible to a variety of other insecticidal agents at significantly lower levels than normally required for toxicity. Indeed, these low levels of gossypol or other phyllophage toxins may even render the target insects susceptible to insecticidal agents which are normally

Serial No. 09/928,585 - Rojas et al.

ineffective. At these low levels, the gossypol and other cotton phyllophage toxins may synergistically enhance the insecticidal efficacy of these other insecticidal agents. Clearly, this is not disclosed or suggested in the prior art relied upon.

Rejection under 35 U.S.C. 102/103

Claim 29 has been rejected under 35 U.S.C. 102(e) as being anticipated by, or under 35 U.S.C. 103 as obvious over McKibben (US 6,316,017). As in the previous rejection, the Examiner has taken the position that while the presence of gossypol or other cotton phyllophage toxin is not disclosed, they would be inherently present.

McKibben ('017) discloses an insecticidal composition comprising 1-23% crude cottonseed oil (col. 3, lines 41-47 and Table 1) and a toxicant effective against a variety of Lepidopteran and Coleopteran insects (col. 2, lines 20-24 and 58-61). Binders, such as synthetic or natural resins used in paints may be included (col. 3, lines 12-22), as well as a variety of non-aqueous solvents (col. 4, lines 3-8). The composition is formulated as a paint or coating which may be applied onto a surface or onto stakes or dowels (wood, paper, bamboo, or

Serial No. 09/928,585 - Rojas et al.

plastic) and dried before use (col. 6, lines 57-64). The reference does not disclose the presence of gossypol or other cotton phyllophage toxins.

The instant application was described *supra*.

As in the rejection over the other McKibben patent ('968), while the '017 patent does not disclose the presence of gossypol in either the crude cottonseed oil or the final attractant, the rejected claim has been amended nonetheless in an effort to remove any question that they might encompass the disclosure of the patent. Specifically, claim 29 has been limited to water in an amount between about 50 to 90%. This is not disclosed or suggested by the patent. The patent does not disclose or suggest adding any water at all, much less in the high amounts claimed.

Moreover, Applicants submit that a practitioner of ordinary skill in the art would have no motivation to add water to the composition of McKibben '017. The patent discloses that the solvents are added to solubilize the ingredients of the composition, and all of the disclosed solvents are non-aqueous (col. 4, lines 3-9). Because water would not be expected to solubilize the components, particularly cottonseed oil, the

Serial No. 09/928,585 - Rojas et al.

skilled practitioner in the art would have no motivation to add water to the composition of the patent.

Rejection under 35 U.S.C. 102

Claim 25 has been rejected under 35 U.S.C. 102(b) as being anticipated by Silverman (WO 99/08529). As in the previous rejection, the Examiner has taken the position that while the presence of gossypol or other cotton phyllophage toxin is not disclosed, they would be inherently present.

Silverman discloses insecticidal compositions for the control of cockroaches comprising an insecticide, such as a phenyl pyrazole, halopyridyl compound, or avermectin, with a plant oil carrier. A variety of plant oils are disclosed including cottonseed oil (page 10). Although not set forth in the specification, the oil content may vary between 2 to 99.99% (claim 25). In use, the composition may be applied onto plastic, paper, or cardboard substrates (claims 24-26) although the amount applied is very small (i.e., 10 μ l of composition onto 9 inch square pieces of high impact polystyrene as in Examples 9 and 10). The reference does not disclose the presence of gossypol or other cotton phyllophage toxins.

Serial No. 09/928,585 - Rojas et al.

The instant application was described *supra*.

As in response to the rejection over Miller, while Silverman discloses that cottonseed oil may be included, the patent does not disclose the type of cottonseed oil used (*i.e.*, crude or refined) or the presence of gossypol or other cotton phyllophage toxins. There is no disclosure that these compounds are present, much less in the claimed concentration which is not biocidal to termites in the absence of an additional insecticidal agent, but which is sufficient to significantly increase the insecticidal efficacy of the additional insecticidal agent when termites are exposed thereto. Applicants respectfully submit that the actual concentration in the original sample is a matter of conjecture.

However, in an effort to expedite prosecution, claim 25 has been limited to water in an amount between about 50 to 90%. This is not disclosed or suggested by the patent. In fact, the patent does not disclose or suggest adding any water, and certainly does not disclose or suggest the amount of water claimed.

Moreover, Applicants submit that a practitioner of ordinary skill in the art would have no motivation to add water to the composition of Silverman. Although Silverman does suggest adding

Serial No. 09/928,585 - Rojas et al.

a solvent for the active ingredient, none are aqueous (see page 10, second paragraph). Still further, Silverman discloses that the amount of solvent is low, only 0 to 5%. This is far less than the claimed amount of water. Again, the skilled practitioner would have no motivation to add such large amounts of water to the composition of the patent.

Rejection under 35 U.S.C. 102

Claim 28 has been rejected under 35 U.S.C. 102(b) as being anticipated by the WPIDS abstract 1992-406126. The claim is rejected for the same reasons set forth in the last Office action.

Applicants believe that the remarks presented in response to this rejection in the last Amendment are still appropriate. However, the claim has been canceled in an effort to expedite prosecution.

Serial No. 09/928,585 - Rojas et al.

For the reasons stated above, claims 1-5, 9-15, 18, 19, 21-27, and 29-37 are believed to distinguish over the prior art of record. Allowance thereof is respectfully requested.

Respectfully submitted,



Randall E. Deck, Agent of Record
Registration No. 34,078

Peoria, IL

309/681-6515

FAX: 309/681-6688

202/720-2421

Enclosure

Fee Transmittal Form Submitted August 13, 2001 (1 page)